
?ds

Set	Items	Description
S1	132	PASTEURELLA? AND AROA
S2	54	RD (unique items)
S3	40	S2/1994:1999
S4	14	S2 NOT S3
S5	14	TARGET - S4

?t s5/3/9

DIAG
2/99
V08

ORDER fax of complete patent from Dialog SourceOne. See HELP ORD 348
AVIRULENT MICROBES AND USES THEREFOR.

AVIRULENTE MIKROBEN UND DEREN VERWENDUNGEN.

MICROBES AVIRULENTS ET LEURS UTILISATIONS.

PATENT ASSIGNEE:

Mega Holding, (1692530), 1025 18th Street South Suite 201, Birmingham,
Alabama 35205, (US), (applicant designated states:

AT;BE;CH;DE;FR;GB;IT;LI;LU;NL;SE)

WASHINGTON UNIVERSITY, (645448), 1 Brookings Drive, St. Louis, MO 63130,
(US), (applicant designated states: AT;BE;CH;DE;FR;GB;IT;LI;LU;NL;SE)

INVENTOR:

CURTISS, Roy, III, 6065 Lindell Boulevard, St. Louis, MO 63112, (US)

LEGAL REPRESENTATIVE:

Hansen, Bernd, Dr.rer.nat. et al (4922), Hoffmann, Eitle & Partner

Patentanwalte Postfach 81 04 20, D-81904 Munchen, (DE)

PATENT (CC, No, Kind, Date): EP 315682 A1 890517 (Basic)

EP 315682 A1 900103

EP 315682 B1 931222

WO 8809669 881215

APPLICATION (CC, No, Date): EP 88905542 880601; WO 88US1899 880601

PRIORITY (CC, No, Date): US 58360 870604

DESIGNATED STATES: AT; BE; CH; DE; FR; GB; IT; LI; LU; NL; SE

INTERNATIONAL PATENT CLASS: A61K-039/02; C12N-015/00; C12N-001/20;

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	EPBBF1	541
CLAIMS B	(German)	EPBBF1	567
CLAIMS B	(French)	EPBBF1	588
SPEC B	(English)	EPBBF1	14534

Total word count - document A 0

Total word count - document B 16230

Total word count - documents A + B 16230

?t s5/9/11

5/9/11 (Item 11 from file: 34)

DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

(c) 1999 Inst for Sci Info. All rts. reserv.

02625716 Genuine Article#: LR044 Number of References: 172

Title: **RECENT ADVANCES IN BOVINE VACCINE TECHNOLOGY**

Author(s): YANCEY RJ

Corporate Source: UPJOHN CO,ANIM HLTH THERAPEUT RES/KALAMAZOO//MI/49001

Journal: JOURNAL OF DAIRY SCIENCE, 1993, V76, N8 (AUG), P2418-2436

ISSN: 0022-0302

Language: ENGLISH Document Type: REVIEW

Geographic Location: USA

Subfile: SciSearch; CC AGRI--Current Contents, Agriculture, Biology &
Environmental Sciences

Journal Subject Category: AGRICULTURE, DAIRY & ANIMAL SCIENCE; FOOD SCIENCE
& TECHNOLOGY

Abstract: A description of new commercial and experimental vaccines for
viral and bacterial diseases of cattle can be broadly divided into
those used for both beef and dairy cows and those used predominantly in
dairy cattle. For both types of cattle, newer and experimental vaccines
are directed against several of the important viral (e.g., bovine
herpesvirus 1, bovine viral diarrhea virus, bovine respiratory
syncytial virus, parainfluenza type 3, and foot-and-mouth disease
virus) and bacterial pathogens (e.g., **Pasteurella** spp., *Haemophilus*
somnus). The viral vaccines include gene-deleted, modified live,
subunit, and peptide antigens. Newer bacterial vaccines, particularly
those for **Pasteurella** spp., are composed of either modified-live
vaccines or bacterins supplemented with toxoid or surface antigens.
Haemophilus somnus vaccine research has concentrated mainly on defining
unique surface antigens. Novel dairy cow vaccines would include the
lipopolysaccharide-core (J5) antigen approach, which has been used for
successful immunization against coliform mastitis. Core antigen

vaccines also have reduced calf mortality from Gram-negative pathogens. Staphylococcal mastitis vaccines that contain capsular antigens, toxoids, or the staphylococcal fibronectin receptor are of active research interest. Vaccines against mastitis induced by Streptococcus agalactiae and Streptococcus uberis also are areas of intensive research. Delivery of multiple subunit antigens with optimal immune response induction has led to the investigation of attenuated heterologous viral and bacterial expression vectors such as bovine herpesvirus 1, vaccinia, and Salmonella spp. This discussion also demonstrates that molecular biology is being used to advance bovine vaccine technology.

Descriptors--Author Keywords: VACCINES ; DISEASE ; ANTIGENS ; MASTITIS
 Identifiers--KeyWords Plus: RESPIRATORY SYNCYTIAL VIRUS; AROMATIC-DEPENDENT SALMONELLA; CHIMERIC FG GLYCOPROTEIN; **PASTEURELLA** -HAEMOLYTICA VACCINE; CLINICAL COLIFORM MASTITIS; HEMOPHILUS-SOMNUS BACTERIN; VIRAL DIARRHEA VIRUS; AUREUS GROWN-INVITRO; MOUTH-DISEASE VIRUS; SERUM-SOFT AGAR

Research Fronts: 91-6536 003 (LIVE ATTENUATED SALMONELLA VACCINES; ORAL IMMUNIZATION; **AROA** STRAIN; VACCINATION OF CHICKENS)
 91-1497 002 (BOVINE HERPESVIRUS TYPE-4; ISCOM OF BHV-1 ENVELOPE GLYCOPROTEINS PROTECTED CALVES; SIMIAN AGENT-8)
 91-1620 001 (BOVINE VIRAL DIARRHEA VIRUS; CATTLE PERSISTENTLY INFECTED; POLYMERASE CHAIN-REACTION ASSAY)
 91-2132 001 (FOOT-AND-MOUTH-DISEASE VIRUS; CAPSID PROTEIN VP1; CONFORMATIONALLY RESTRICTED B-CELL EPITOPES ELICITS NEUTRALIZING ANTISERA)
 91-2839 001 (CLINICAL MASTITIS; DAIRY HERDS; BOVINE NEUTROPHILS FOLLOWING GROWTH; PERIPARTURIENT COWS; INTRAMAMMARY CHALLENGE; LOW SOMATIC-CELL COUNTS; TEAT DIP)
 91-6647 001 (HISTOPHILUS OVIS HAEMOPHILUS SOMNUS INFECTION; CHRONIC LESIONS OF THROMBOEMBOLIC MENINGOENCEPHALOMYELITIS)
 91-8074 001 (FLAGELLIN SYNTHESIS IN SALMONELLA-TYPHIMURIUM; TRYPTOPHAN-SPECIFIC PERMEASE OF ESCHERICHIA-COLI K-12; RFB REGION; TRP PROMOTER; MOLECULAR MECHANISM)

Cited References:

US 4328210, 1982, KUCERA CJ
 ADLAM C, 1977, V17, P250, INFECT IMMUN
 ANDERSON JC, 1978, V134, P412, BRIT VET J
 ANDERSON JC, 1976, V5, P783, ZENTRALBL BAKTER I S
 BABIUK LA, 1987, V159, P57, VIROLOGY
 BAKER JC, 1989, V50, P814, AM J VET RES
 BAKER JC, 1991, V13, P1323, COMP CONT EDUC PRACT
 BAKER JC, 1987, V190, P1449, J AM VET MED ASSOC
 BARTELING SJ, 1991, V9, P75, VACCINE
 BAXBY D, 1992, V10, P8, VACCINE
 BEESLEY KM, 1990, V8, P644, BIO-TECHNOL
 BELSHAM GJ, 1989, V124, P655, VET REC
 BENNETT BW, 1982, V3, P26, BOVINE PRACT
 BITTLE JR, 1982, V2, P184, LANCET
 BLANCHARDCHANNE.MT, 1987, V48, P637, AM J VET RES
 BRAMLEY AJ, 1989, V57, P2489, INFECT IMMUN
 BRIDEAU RJ, 1989, V70, P2637, J GEN VIROL
 BRIDEAU RJ, 1993, V74, P471, J GEN VIROL
 CADOZ M, 1992, V339, P1429, LANCET
 CARDENAS L, 1992, V5, P328, CLIN MICROBIOL REV
 CHANDLER RL, 1970, V3, P273, J MED MICROBIOL
 CHATFIELD SN, 1989, V7, P495, VACCINE
 CHENGAPPA MM, 1979, V40, P449, AM J VET RES
 COELINGH KLV, 1987, V160, P465, VIROLOGY
 COLDITZ IG, 1985, V62, P145, AUST VET J
 COLINGH KLV, 1987, V87, P296, VACCINES COLD SPRING
 CONFER AW, 1984, V45, P2622, AM J VET RES
 CONFER AW, 1987, V48, P163, AM J VET RES
 CONLON JA, 1991, V59, P587, INFECT IMMUN
 CORBEIL LB, 1991, P39, C RES WORKERS ANIM D
 CORBEIL LB, 1990, V54, S57, CAN J VET RES
 CORBEIL LB, 1987, V55, P1381, INFECT IMMUN

CULLOR JS, 1992, V200, P1894, J AM VET MED ASSOC
 CULLOR JS, 1991, V86, P836, VET MED-US
 CURTISS R, 1990, P161, NEW GENERATION VACCI
 DAIGNEAULT J, 1991, V52, P1492, AM J VET RES
 DARDENNE AJ, 1984, V142, P235, J PATHOL
 DEGRAVES FJ, 1991, V199, P451, J AM VET MED ASSOC
 DEREER JM, 1992, V1, P74, 17 P WORLD BIUATR C
 DIMARCHI R, 1986, V232, P639, SCIENCE
 EBERHART RJ, 1979, V62, P1, J DAIRY SCI
 FATTOM A, 1990, V58, P2367, INFECT IMMUN
 FATTOM A, 1992, V60, P584, INFECT IMMUN
 FATTOM A, 1992, P56, 7TH INT S STAPH STAP
 FITZPATRICK DR, 1989, V173, P46, VIROLOGY
 FLEXNER C, 1990, V21, P51, ADV PHARMACOL
 FLOCK JI, 1992, P58, 7TH INT S STAPH STAP
 FOSTER TJ, 1990, P35, PATHOGENESIS WOUND B
 FOSTER TJ, 1991, V9, P221, VACCINE
 FOURNIER JM, 1990, P533, PATHOGENESIS WOUND B
 FRANCIS MJ, 1987, V61, P1, IMMUNOLOGY
 FRANCIS MJ, 1990, V87, P2545, P NATL ACAD SCI USA
 FRERICHES GN, 1982, V111, P116, VET REC
 GEORGE L, 1988, V49, P1800, AM J VET RES
 GIBBS EPJ, 1977, V47, P317, VET B
 GOGOLEWSKI RP, 1987, V55, P1403, INFECT IMMUN
 GOGOLEWSKI RP, 1988, V56, P2307, INFECT IMMUN
 GONZALEZ RN, 1989, V53, P301, CAN J VET RES
 GONZALEZ RN, 1990, P205, P INT S BOVINE MASTI
 GUIDRY AJ, 1991, V74, P3360, J DAIRY SCI
 HEATH AW, 1992, V10, P427, VACCINE
 HILL AW, 1988, V44, P386, RES VET SCI
 HILL AW, 1991, V15, P7, VET RES COMMUN
 HIMES SR, 1992, V73, P1563, J GEN VIROL
 HJERPE CA, 1990, V6, P171, VET CLIN N AM-FOOD A
 HOGAN JS, 1992, V75, P78, J DAIRY SCI
 HOGAN JS, 1992, V75, P415, J DAIRY SCI
 HOISETH SK, 1981, V291, P238, NATURE
 HRUBY DE, 1990, V3, P153, CLIN MICROBIOL REV
 HUGHES HPA, 1992, V10, P226, VACCINE
 HUMPHREY JD, 1983, V53, P987, VET B
 INZANA TJ, 1992, V60, P2943, INFECT IMMUN
 ISRAEL BA, 1988, V6, P349, VACCINE
 JERICHO KWF, 1982, V46, P293, CAN J COMP MED
 JIM K, 1988, V83, P1084, VET MED
 JOHNSON EH, 1985, V10, P451, VET MICROBIOL
 JONES PW, 1991, V9, P29, VACCINE
 KADEL WL, 1985, V46, P1944, AM J VET RES
 KIMMAN TG, 1990, V112, P1, ARCH VIROL
 KING AMQ, 1981, V293, P479, NATURE
 KIT M, 1991, V9, P564, VACCINE
 KIT S, 1985, V86, P63, ARCH VIROL
 KIT S, 1989, P219, IMMUNOBIOLOGY PROTEI
 KIT S, 1986, V4, P55, VACCINE
 KUCERA CJ, 1983, V44, P1848, AM J VET RES
 KWIECIEN JM, 1991, V32, P595, CAN VET J
 LEHMAN DJ, 1992, V74, P459, J GEN VIROL
 LIANG XP, 1992, V189, P629, VIROLOGY
 LITTELVANDENHUR.SV, 1990, V8, P358, VACCINE
 LOBMANN M, 1986, V47, P557, AM J VET RES
 LOEFFLER DA, 1988, V49, P1452, AM J VET RES
 LOEFFLER DA, 1987, V14, P145, VET IMMUNOL IMMUNOP
 LUPTON HW, 1980, V41, P383, AM J VET RES
 MACKETT M, 1985, V227, P433, SCIENCE
 MACKIE DP, 1983, V112, P472, VET REC
 MCFEELY RA, 1968, V153, P657, J AM VET MED ASSOC
 MCKERCHER PD, 1985, V46, P587, AM J VET RES
 MILLER JM, 1989, V50, P551, AM J VET RES
 MILLER JM, 1991, V52, P1038, AM J VET RES

MILLER JM, 1991, V86, P95, VET MED-US
MILLS L, 1991, V12, P35, AGRI-PRACTICE
MISRA V, 1988, V166, P542, VIROLOGY
MOREIN B, 1984, V308, P487, NATURE
MORGAN DO, 1990, V51, P40, AM J VET RES
MOSIER DA, 1989, V57, P711, INFECT IMMUN
MURPHY BR, 1989, V7, P533, VACCINE
NAIDU AS, 1991, V74, P3353, J DAIRY SCI
NASHAR TO, 1991, V50, P145, RES VET SCI
NELSON L, 1991, V62, P111, VLEM VET J S1
NEWSHAM R, 1992, V1, P224, 17 P WORLD BUIATR C
NICKERSON SC, 1991, V74, P167, J DAIRY SCI S1
NICKERSON SC, 1992, V2, P239, 17 P WORLD BIUATR C
NORCROSS NL, 1991, V62, P129, FLEM VET J S1
NORDHAUG ML, 1992, P57, 7TH INT S STAPH STAP
OPDEBEECK JP, 1983, V44, P986, AM J VET RES
OPDEBEECK JP, 1985, V46, P1561, AM J VET RES
OPDEBEECK JP, 1987, V13, P225, VET MICROBIOL
OPDEBEECK JP, 1988, V16, P87, VET MICROBIOL
PANKEY JW, 1983, P149, 1983 HILL FARM RES S
PASTORET PP, 1980, V29, P483, INFECT IMMUN
PATEL AH, 1987, V55, P3103, INFECT IMMUN
PATZER EJ, 1985, P153, IMMUNOCHEMISTRY VIRU
POUTREL B, 1988, V26, P38, J CLIN MICROBIOL
PROCTOR RA, 1982, V59, P681, BLOOD
PURDY CW, 1986, V188, P589, J AM VET MED ASSOC
RAINARD P, 1991, V62, P141, FLEM VET J S1
RATHER PN, 1986, V23, P858, J CLIN MICROBIOL
RIBBLE CS, 1988, V52, P191, CAN J VET RES
ROBERTSSON JA, 1983, V41, P742, INFECT IMMUN
ROTH JA, 1988, V83, P1067, VET MED
ROUSE B, 1978, V42, P415, CAN J COMP MED
SANDERSON KE, 1988, V52, P485, MICROBIOL REV
SCHELD WM, 1985, V180, P474, P SOC EXP BIOL MED
SCHULTZ KT, 1991, V23, P20, BOVINE P
SEARS PM, 1990, P69, P INT S BOVINE MASTI
SHEWEN PE, 1988, V83, P1078, VET MED
SMITH BP, 1984, V45, P59, AM J VET RES
SMITH BP, 1984, V45, P2231, AM J VET RES
SMITH BP, 1984, V45, P1858, AM J VET RES
SPRIGGS MK, 1987, V61, P3416, J VIROL
STEPHENS LR, 1982, V43, P1339, AM J VET RES
STEPHENS LR, 1990, V54, S41, CAN J VET RES
STRABEL TJ, 1991, V59, P2941, INFECT IMMUN
STROHMAIER K, 1982, V59, P295, J GEN VIROL
SUTRA L, 1990, V51, P1857, AM J VET RES
SUTRA L, 1990, V28, P2253, J CLIN MICROBIOL
TIKOO SK, 1990, V64, P5132, J VIROL
TRUDEL M, 1988, V6, P525, VACCINE
TYLER J, 1991, V74, P1235, J DAIRY SCI
TYLER JW, 1988, V49, P1950, AM J VET RES
TYLER JW, 1992, V75, P1821, J DAIRY SCI
TYLER JW, 1990, V4, P17, J VET INTERN MED
VANDERMAATEN MJ, 1985, V46, P1996, AM J VET RES
VERCELLOTTI GM, 1984, V103, P34, J LAB CLIN MED
WALSH EE, 1987, V153, P1198, J INFECT DIS
WANGER AR, 1987, V55, P1170, INFECT IMMUN
WATHEN MW, 1989, V70, P2625, J GEN VIROL
WATHEN MW, 1989, V159, P25, J INFECT DIS
WATHEN MW, 1991, V163, P477, J INFECT DIS
WATSON DL, 1984, V67, P2608, J DAIRY SCI
WATSON DL, 1979, V23, P543, MICROBIOL IMMUNOL
WATSON DL, 1990, P73, P INT BOVINE MASTITI
WATSON DL, 1982, V32, P311, RES VET SCI
WATSON DL, 1988, V45, P16, RES VET SCI
WATSON DL, 1989, V47, P152, RES VET SCI
WATSON DL, 1985, P433, STAPHYLOCOCCI

WATTS JL, 1988, V16, P41, VET MICROBIOL
WHETSTONE CA, 1986, V47, P1789, AM J VET RES
WHETSTONE CA, 1992, V122, P107, ARCH VIROL
WHITBECK JC, 1988, V62, P3319, J VIROL
YANCEY RJ, 1985, V15, P219, J ANTIMICROB CHEMOTH
YILMA T, 1988, V242, P1058, SCIENCE

#	Patent	Source	Flag	Issue Date	Pages	Current Original Classif	Retrieval Classif	Current Cross Reference
1	5,855,880	U	S	01/05/1999	35	424/93.2		424/93.48 ...
2	5,855,879	U	U	01/05/1999	37	424/93.2		424/93.48 ...
3	5,849,305	U	U	12/15/1998	18	424/255.1		424/93.2 ...
4	5,840,556	U	U	11/24/1998	10	536/23.1	...	
5	5,824,525	U	U	10/20/1998	22	435/252.1	...	
6	5,783,196	U	U	07/21/1998	33	424/234.1		424/235.1 ...
7	5,733,780	U	U	03/31/1998	22	435/320.1		
8	5,698,394	U	U	12/16/1997	31	435/6		435/91.2 ...
9	5,693,777	U	U	12/02/1997	21	536/23.2		435/196 ...
10	5,683,900	U	U	11/04/1997	22	435/196		530/300 ...
11	5,587,305	U	U	12/24/1996	22	435/477		424/93.2 ...
12	5,547,576	U	U	08/20/1996	14	210/500.37		210/435 ...
13	5,468,485	U	U	11/21/1995	31	424/184.1		424/93.1 ...
14	5,424,065	U	U	06/13/1995	18	424/93.2		424/93.48 ...
15	5,389,368	U	U	02/14/1995	29	424/200.1		424/93.4 ...
16	5,364,774	U	U	11/15/1994	22	435/320.1		435/235.1 ...
17	5,294,441	U	U	03/15/1994	38	424/200.1		424/235.1 ...
18	5,010,000	U	U	04/23/1991	14	435/69.1		435/69.51 ...
19	4,675,189	U	U	06/23/1987	11	424/490		424/426 ...

(FILE 'USPAT' ENTERED AT 14:19:00 ON 08

FEB 1999)

L1	2309 S	HEMOLYTIC?
L2	922 S	ARO
L3	138 S	AROA
L4	0 S	L1 (P) (L2 OR L3)
L5	12 S	L1 AND (L2 OR L3)
L6	661 S	HAEMOLYT?
L7	7 S	L6 (P) (L2 OR L3)
L8	19 S	L5 OR L7